Knobbe Martens Olson & Bear LLP

Intellectual Property Law

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Eric M. Nelson

September 6, 2007

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Re:

Title: METHOD AND APPARATUS FOR SIMULATING PHYSICAL FIELDS

Letters Patent No. 7,124,069 Issued: October 17, 2006

Our Reference: IMEC215.001C1

Dear Sir:

Enclosed for filing is a Certificate of Correction in connection with the above-identified patent.

As certain of the errors cited in the Certificate of Correction were incurred through the fault of the Patent Office and Knobbe, Martens, Olson & Bear, LLP, the \$100 fee will be paid via the EFS Web. However, please charge any additional fees to our Deposit Account No. 11-1410.

Respectfully submitted,

Knobbe, Martens, Olson & Bear, LLP

Eric M. Nelson

Registration No. 43,829

Customer No. 20995

Enclosures

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PATENT NO.

: 7,124,069

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APPLICATION NO. : 10/630,439

ISSUE DATE

: October 17, 2006

INVENTOR(S)

: Meuris et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column	Line	<u>Description of Error</u>
First Page	2	Delete "differentail" and
Col. 2		insert differential, therefor.
(Other Publications)		
Page 2	2	Delete "differentail" and
Col. 1		insert differential, therefor.
(Other Publications)		, , , , , , , , , , , , , , , , , , ,
1	12	Delete "entirely;" and
		insert entirety;, therefor.
1	22	Delete "entirely." and
		insert entirety, therefor.
7	13	Delete "suceptibility," and
		insert susceptibility,, therefor.
9	64	After "vector." delete "the" and
		insert The, therefor.
12	27	Delete "sows" and
	(Approx.)	insert shows, therefor.
13	5	After "direction" insert
18 (Equation 30)	43 (Approx.)	After "direction" insert $-\nabla \cdot \left(e \nabla V + e \frac{\partial A}{\partial t} + e \frac{\partial \nabla \chi}{\partial t} \right) = \chi$ Delete " and insert
		$-\nabla \cdot \left(\varepsilon \nabla V + \varepsilon \frac{\partial A}{\partial t} + \varepsilon \frac{\partial \nabla \chi}{\partial t} \right) = \rho$, therefor.
18	46	
(Equation 31)	(Approx.)	Delete " $J - e \frac{\partial}{\partial t} \left(\nabla V \right)$ " and
		insert $J - \varepsilon \frac{\partial}{\partial t} \left(\nabla V \right)$, therefor.
18 (Equation 33)	61 (Approx.)	Delete " $\nabla \cdot (e \nabla V) = -\rho$ " and insert $\nabla \cdot (\varepsilon \nabla V) = -\rho$, therefor.
		insert $\nabla \cdot (\varepsilon \nabla V) = -\rho$, therefor.

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18	63	ð (
(Equation 34)	(Approx.)	Delete " $J - e \frac{\partial}{\partial t} \left(\nabla V \right)$ and
		_
		insert $J - \varepsilon \frac{\partial}{\partial t} \left(\nabla V \right)$, therefor.
10	2.5	insert, therefor.
19	35	Delete "co." and insert ω, therefor.
19	38	Delete " $\nabla \cdot (e\nabla V) = -\rho$ " and
(Equation 36)	(Approx.)	1
		$\frac{\text{insert} - \nabla \cdot (\varepsilon \nabla V) = -\rho}{\text{Delete}} - \frac{J - j\omega e \nabla V + e\omega^2 A + e\omega^2}{\text{and insert}}$
19	42	$I = i \omega_0 \nabla V + \alpha \omega^2 A + \alpha \omega^2$
(Equation 37)	(Approx.)	Delete "J = jwe v v + ew n + ew " and insert
		$I = i\cos \nabla V + \cos^2 A + \cos^2 \nabla v$
		$J - j\omega\varepsilon\nabla V + \varepsilon\omega^2 A + \varepsilon\omega^2\nabla\chi$, therefor.
19	66	Delete " $\xi = \xi_0 - \xi e^{i\omega t}$." and
		insert $\xi = \xi_0 - \xi e^{j\omega t}$, therefor.
20	61	
(Equation 50)	(Approx.)	Delete " $\nabla \cdot (e \nabla \hat{V}) - \hat{\rho} = 0$," and
		$\nabla \left(\nabla \mathcal{V} \right) = 0$
		insert - $\nabla \cdot (\varepsilon \nabla \hat{V}) - \hat{\rho} = 0$, therefor. Delete " $j\omega e \nabla \hat{V}$ — and
20	63	$i\omega e \nabla \hat{V} =$
(Equation 51)	(Approx.)	Delete " and " and
		$i as \nabla \hat{V}$.
		insert Just, therefor.
22	60	insert - $\cdot j\omega \varepsilon \nabla \hat{V}$, therefor. $\int_{\Delta L_{ij}} \nabla V \cdot dS \sim V_j - V_i$ Delete " $\int_{\Delta L_{ij}} \nabla V \cdot dS \sim V_j - V_i$ " and
(Equation 66)		Delete "JaLij " and
		$\int \nabla V \cdot dl \sim V_j - V_i$
		insert ΔL_{y} , therefor.
23	13	insert $\frac{\Delta L_{\emptyset}}{\lambda_{ij}}$, therefor. Delete " $\frac{\Delta_{ij}}{\mu_{0}} A_{ij} + \sum_{kl}^{12} \frac{\Delta_{ij}^{kl}}{\mu_{0}} A_{kl}$ " and insert
(Equation 67)	(Approx.)	$\sum_{i} A_{ij} + \sum_{i} \frac{\overline{\mu_0}}{\mu_0} A_{kl}$
		Delete and insert
		$-\frac{A_{ij}}{\mu_0}A_{ij} + \sum_{kl}^{12} \frac{A_{ij}^{kl}}{\mu_0}A_{kl}$, therefor.
		μ_0 μ_0 therefor
		, (1010101

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23	23	C C C C C C C C C C
(Equation 68)	(Approx.)	$\nabla \cdot (e\nabla V) dv = \left(e\nabla V \cdot dS \sim \right)^{3} S_{ik} e_{ik} \frac{\nabla V}{ds}$
		Delete " $\int_{\Delta V_i} \nabla \cdot (e \nabla V) dv = \int_{\partial (\Delta V_i)} e \nabla V \cdot dS \sim \sum_{k}^{0} S_{ik} e_{ik} \frac{V_k - V_i}{h_{ik}}$," and insert
		$\int_{\Sigma} \sqrt{2} V_k = \int_{\Sigma} \sqrt{2} V_k = V_k$
-		$\int V \cdot (\varepsilon \vee V) dV = \int \varepsilon \vee V \cdot dS \sim \sum_{i} S_{ik} \varepsilon_{ik} \frac{\pi}{h}$
		$\frac{dV_i}{dt}$ $\frac{\partial (dV_i)}{\partial t}$ $\frac{\partial (dV_i)}{\partial t}$, therefor.
23	44	$(\nabla \cdot (P \nabla V)$
(Equation 70)	(Approx.)	Delete "\" and
		Delete $\int_{-aV_{l}}^{\nabla} \cdot (\varepsilon \nabla V) dv = \int_{\varepsilon dV_{l}}^{\varepsilon} \nabla V \cdot dS \sim \sum_{k}^{\delta} S_{ik} \varepsilon_{ik} \frac{V_{k} - V_{i}}{h_{ik}}, \text{ therefor.}$ $Delete " \left(\nabla \cdot \left(\varepsilon \nabla V \right) \right) \text{ and}$ $\operatorname{insert} - \left(\nabla \cdot \left(\varepsilon \nabla V \right) \right), \text{ therefor.}$
23	61	Delete " $j\mu_0 \mathbf{S} \mathbf{e}_{ij} S_{ij}$ " and
(Equation 73)	(Approx.)	insert - $-j\mu_0\omega \mathbf{\epsilon}_{ij} S_{ij}$, therefor.
23	65	Delete " $S_{ik}e_{ik}$ " and insert $S_{ik}E_{ik}$, therefor.
(Equation 74)		
24	21	Delete " $-\mathbf{S}_{ij}$ (" and insert $-\boldsymbol{\sigma}_{ij}$ (, therefor.
(Equation 77)	(Approx.)	
24	53	Delete " $\frac{J_{ij}}{\mu_{ij}} = -\frac{a}{h_{ij}}B\left(\frac{-\beta_{ij}}{a}\right)c_i + \frac{a}{h_{ij}}B\left(\frac{\beta_{ij}}{a}\right)c_j$," and insert
(Equation 80)	(Approx.)	Delete " μ_{ij} h_{ij} a b h_{ij} a b a b h_{ij} and insert
		$\frac{J_{ij}}{\mu_{ij}} = -\frac{\alpha}{h_{ij}} B\left(\frac{-\beta_{ij}}{\alpha}\right) c_i + \frac{\alpha}{h_{ij}} B\left(\frac{\beta_{ij}}{\alpha}\right) c_j$, therefor.
		$\frac{1}{u} = -\frac{B}{h} \frac{1}{a} \left c_i + \frac{B}{h} \right \frac{1}{a} \left c_j \right $
0.5		^µ ij ''ij (w), therefor.
25	66	Delete "FIG." and insert FIGS, therefor.
27	(Approx.)	Delete "A manager" and
21	(Approx.)	Delete "Amperes" and
27	66	insert Ampere's, therefor. Delete "= I^1 ." and insert = $I^{(1)}$, therefor.
	(Approx.)	, therefore
29	17	Delete "Hehnholtz" and
		insert Helmholtz, therefor.
31	45	Below "struct cubeListPointer *next;" insert };
	(Approx.)	
32	39	Delete " $\nabla \times \nabla \times A_R - \mu_0 \in \omega^2 A_R - \mu_0 \in \omega \nabla$ " insert
(Equation 94)	(Approx.)	Delete " " " " " " " " " " " " " " " " " "
		$\nabla \times \nabla \times A_{R} - \mu_{0} \varepsilon \omega^{2} A_{R} - \mu_{0} J_{R} - \mu_{0} \varepsilon \omega \nabla$, therefor.
1		, therefor.

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37	38	Delete "subtractions)=as" and
		insert subtractions) as, therefor.
38	20–21	Delete "\chi^O(10-14)." and
	(Approx.)	insert χ^{\sim} O(10 ⁻¹⁴), therefor.
38	54	Delete " $10^{-8}\Omega m^{-8}$." and
		insert $10^{-8}\Omega$ m, therefor.
39	31	After "with" delete "I" and
	(Approx.)	insert I, therefor.
39	34	Delete "L=[$(\mu_0 \mathbf{I} \mathbf{n}(b/a))/(2\pi)$]." and
	(Approx.)	insert L=[$(\mu_0 \ln(b/a))/(2\pi)$], therefor.
42	9	Delete "189," and insert I ₈₉ ,, therefor.
42	17	Delete " d_7xI_{19} " and
	(Approx.)	insert d_7+I_{19} , therefor.
43	26	Delete "2n" and insert 2 ⁿ , therefor.
47	7	Before "second" delete "the".
	(Approx.)	
50	42	Delete "succesive" and
	(Approx.)	insert successive, therefor.
53	1	In Claim 9, delete "A apparatus" and insert An apparatus,
		therefor.

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